

The Galveston Plan and Social Security: A comparative analysis of two systems

by

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Executive Summary

On January 1, 1981, the County of Galveston, Texas opted out of the Social Security system and implemented the Alternate Plan (referred to in this report as the 'Galveston Plan') in place of Social Security.¹ The Galveston Plan has received recent attention in the press and in congressional testimony as an example of a privatized plan that could serve as a model for the privatization of Social Security.² The purpose of this report is to compare and contrast the Galveston Plan with Social Security, and examine how certain workers with different earnings levels and family types fare under each system.

Key findings indicate that in comparison to Social Security,³ Galveston's Plan does not have a waiting period for coverage (full coverage begins in the first pay period of employment); it offers more pay-out options (lump-sum or various annuities) than Social Security; and, in general, provides higher benefits to those with higher earnings and/or those with fewer dependents who would qualify under Social Security.

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¹ Two other Texas counties—Matagorda and Brazoria—opted out of Social Security at the same time as Galveston and started their own alternate plans. These plans are similar to Galveston's and are administered by the same company—First Financial Benefits, Inc.

² See testimony from the Senate Budget Committee Hearing on Social Security, January 19, 1999, and from the House Ways and Means Sub-Committee on Social Security on February 3, 1999. Also see E.J. Meyers, "Social Security Privatization is Here," in the *Wall Street Journal*, January 16, 1998; and Stephen Glass, "Mrs. Colehill Thanks God for Private Social Security" in *Policy Review*. May-June 1997, pp. 9-10.

³ The comparative analysis presented in this report assumes that current Social Security program characteristics will continue into the future.

Furthermore, under the Galveston Plan, contribution rates (payroll taxes) are higher than under Social Security; there is a risk of outliving one's benefits under certain pay-out options (lump-sum or fixed annuity); there are no *additional* spousal or dependent benefits (benefits are based entirely on contributions);⁴ benefits are paid to a named beneficiary and there is no guarantee that benefits will be provided to a spouse/divorced spouse or dependent child; benefits are not portable to future employers; benefits are not adjusted for inflation; and, in general, benefits are lower for those with lower earnings and/or a greater number of dependents who qualify under Social Security.

Whether the Galveston Plan provides a retirement, disability or survivor's benefit that is higher or lower than Social Security's depends upon factors including the worker's earnings, time in the labor force, the age and number of beneficiaries, and the type of benefit being evaluated. This report presents a comparison of benefits under the Galveston Plan and Social Security based on different earner and family scenarios. These scenarios include single and married workers at the low, middle, high and very-high earnings levels.⁵ In the case of disability and survivor's benefits, married workers are assumed to have two children (see Appendix B for a full description of methodology). Findings from this analysis indicate that:

- Galveston provides a higher **initial retirement benefit** than Social Security to single workers (without dependents who would qualify under Social Security) at the middle, high and very high earnings levels, and to married workers at the very-high earnings level. Social Security provides a higher initial retirement benefit to low-earning single workers and to married workers at the low, middle and high earnings levels. Because Galveston's benefits are not indexed to inflation, they lose value relative to Social Security's benefits over time.
- The **initial disability benefits** provided under the Galveston Plan are higher for single workers at all earnings levels and for married workers with two children at the very-high earnings level. Social Security offers a higher benefit to married workers with two children at the low, middle and high earnings levels. As with retirement benefits, inflation reduces the relative value of Galveston's disability benefits over time.
- In general, total benefits provided to **survivors of current workers** (non-elderly survivors) by the Galveston Plan are higher for workers who either do not have dependents, or in cases when dependents are present but do not qualify for Social Security. Total benefits for married workers with two children may be higher or lower under the Galveston Plan depending on the number and age of qualified dependents. Under the scenarios considered in this report, Social Security offers a higher total benefit to families with two younger children (ages 5 or 10), whereas Galveston offers a higher benefit to families with older children (age 15).
- With respect to **survivors of retired workers** (elderly survivors), assuming that Galveston retirees elect a 2/3 joint-contingent survivor's annuity at the time of retirement, Galveston's initial survivor's benefits are higher for widow(er)s of retired workers at the very-high earnings level. Social Security offers a higher initial widow(er)'s benefit to those at the low, middle and high earnings levels. Again, Galveston's benefit loses its relative value over time.

⁴ In contrast, Social Security offers additional benefits for each dependent, up to a given family maximum.

⁵ Earnings levels represent earnings at the following percentiles in the year 2045: low=10th, middle=50th, high=75th and very-high=90th.

I. Introduction

This report presents a comparative analysis of the Galveston Plan and Social Security. It begins with a description and comparison of various plan components including: finance, investments, types of benefits offered, coverage and portability, dependent's benefits, pay-out options and retirement age, taxation of benefits, treatment of earnings from employment, the effect of inflation on benefits, and the progressivity of benefit formulas. The comparison of plan features is followed by a series of benefit comparisons, which evaluate prospective retirement, disability and survivor's benefits for different earner and family types. Key findings indicate that in general, the Galveston Plan offers higher initial benefits than Social Security to workers with higher earnings and/or in cases where there are no dependents that would qualify under Social Security. Social Security tends to offer higher initial benefits than the Galveston Plan to workers with lower earnings and/or to families with dependents who qualify for Social Security benefits. Although many of Galveston's initial benefits are higher than Social Security's, they are not indexed to inflation and lose value relative to Social Security's over time.

II. Description and Comparison of Plan Components

Background

The Galveston Plan is a defined contribution plan (403b) under Section 457 of the Internal Revenue Code. It provides life insurance, disability insurance, and retirement benefits to Galveston County workers and their beneficiaries. There are approximately 1,500 active employees participating in the Galveston Plan and 260 former or disabled employees who either receive or are eligible to receive benefits.⁶ Galveston also offers a separate defined contribution pension plan that provides retirement benefits in addition to those offered under the Galveston Plan.⁷ The information presented in this report is based solely on the Galveston Plan and does not include the additional pension benefits offered by the County's separate pension plan.

Social Security's Old-Age, Survivors and Disability Insurance Program (OASDI) provides monthly benefits to retired and disabled workers and their dependents, and to survivors of insured workers. In November 1998, 44,211,900 persons were receiving Social Security benefits. Of these

⁶ Estimate of number of participants provided by First Financial Benefits, Inc., February 5, 1999.

⁷ The additional pension plan is also a defined contribution plan with a worker contribution of 7 percent of gross pre-tax wages. The County matches workers' contributions by \$2.10 : \$1 (total contribution is 21.7 percent of gross pre-tax wages). Benefits from this pension plan are paid out in the form of a life annuity. This annuity is not indexed to inflation.

beneficiaries, 62.2 percent were retired workers, 10.6 percent were disabled workers, 8.5 percent were children of workers, 6.9 percent were wives and husbands of workers, 11.8 percent were widows/widowers of workers, mothers/fathers of worker's children, or parents of workers. Seventy-two percent of the total beneficiaries were age 65 or older, and 6.7 percent were children under age 18.⁸

Finance

The Galveston Plan is financed through pre-tax payroll contributions of a minimum of 13.9 percent of gross pay (6.1 percent from workers and 7.8 percent from the County).⁹ Worker's contributions are not subject to federal income tax. Of the 13.9 percent combined contribution, 9.7 percent goes to retirement benefits, and 4.2 percent goes to disability and life insurance premiums. The County's contribution of 7.8 percent of gross pre-tax wages is split between 4.2 percent which goes to life and disability insurance premiums, and the remaining 3.6 percent which goes to the employee's retirement account. Workers can make additional contributions to the Galveston Plan's retirement account of up to 25 percent of adjusted gross wages, with a maximum combined worker and County contribution of \$8,000 per year in 1999.¹⁰ The maximum salary subject to retirement contributions in 1999 is \$82,160.¹¹ The County's 4.2 percent contribution to disability and life insurance premiums is assessed on all wages (i.e., there is no maximum subjected wage).

In contrast, the total Social Security payroll tax rate is 12.4 percent of wages (6.2 percent from workers and 6.2 percent from employers). Workers contributions are subject to federal income tax. Of the 12.4 percent which goes to the OASDI Trust Funds in 1999, 10.7 percent is dedicated to retirement and survivor's benefits, and 1.7 percent is used to finance disability benefits.¹² Taxes are applied to earnings up to \$72,600 in 1999 (there is no tax on earnings above this level).¹³

Investments

Galveston's retirement funds are invested at the discretion of the County (employees do not control investment decisions). Funds are invested in Group Fixed Annuity Contracts, issued through the American United Life Insurance Company, which offer a guaranteed minimum return on investment. The annual interest earned on Galveston's investments has averaged 4.62 percent

⁸ For further information, see *Highlights of Social Security Data, November 1998*, available on the Social Security Administration's website at <http://www.ssa.gov/statistics/highssd.html>

⁹ Because Galveston's contributions are made from pre-tax payroll contributions, federal income tax is not applied to these amounts.

¹⁰ The maximum wage subject to contributions for 403(b) plans is set by law and is indexed to inflation as provided under Section 415(d) of the Internal Revenue Code.

¹¹ Ibid.

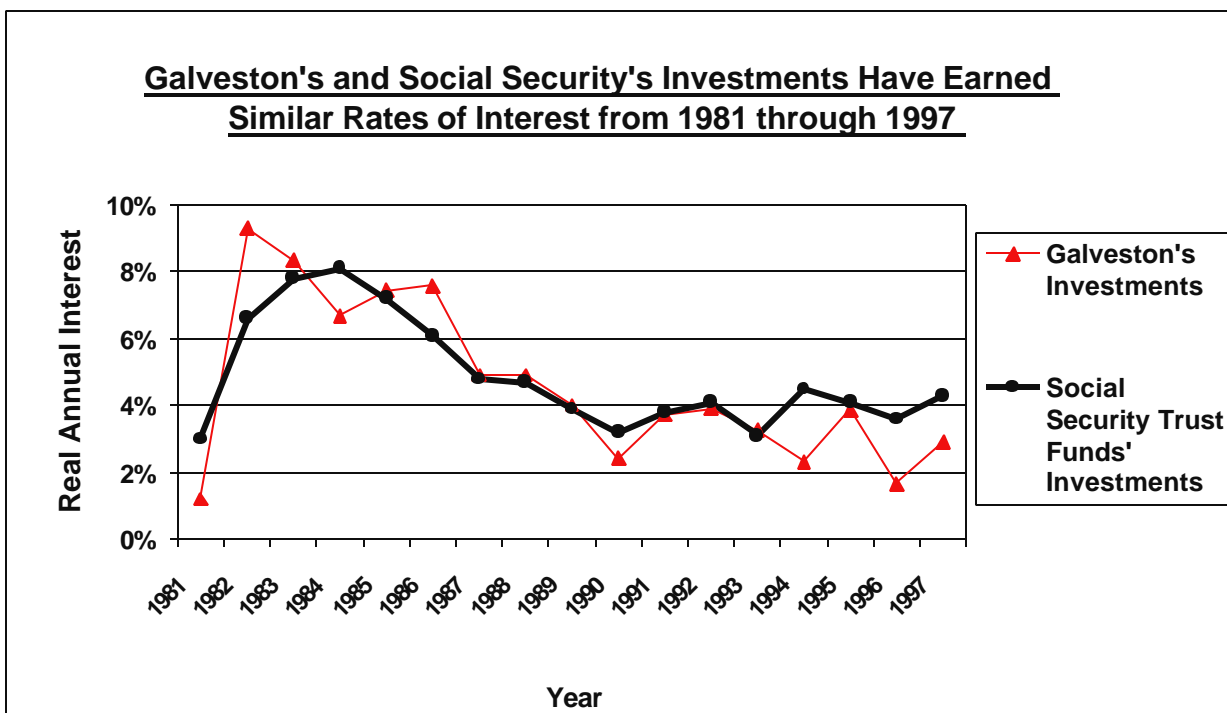
¹² In the year 2000 and beyond, the percentage of FICA going to retirement and survivor's benefits (OASI) will decrease to 10.6 percent, and the percentage going to disability benefits (DI) will increase to 1.8 percent. See the Social Security Administration publication *Annual Statistical Supplement (1998) to the Social Security Bulletin*, Table 2.A3, pg. 37, for further details.

¹³ See the Social Security Publication No. 05-10003, *Social Security Update 1999* available on-line at www.ssa.gov/pubs/10003.html.

real (or 8.64 percent nominal) from 1981 through 1997. The returns on Galveston's investments are added to workers' retirement accounts.

With respect to Social Security's investments, the amount of the OASDI Trust Funds in excess of that needed to pay current benefits is invested in Special Issue Treasury Certificates. The annual interest earned on Social Security's investments has averaged 4.88 percent real (or 8.89 percent nominal) from 1981 through 1997. On average, Social Security's investments have earned interest .25 percentage points higher than Galveston's from 1981 through 1997. The returns on these investments remain within the Trust Funds or are paid out in the form of benefits, but they do not directly affect benefit levels, which are set by law.

Figure 1:



Sources: American United Life Insurance Company, Galveston Data Tables, January 25, 1999. *Social Security Trustees Report* (1998).¹⁴

¹⁴ The *Social Security Trustees Report* (1998) is available on-line through the Social Security Administration's website at www.ssa.gov/OACT/TR/index.html.

Types of Benefits Offered

The Galveston Plan and Social Security offer benefits for similar life events—retirement, disability and death. The following tables provide a basic summary of benefits offered under each plan.

Table 1:

Summary of Galveston Plan Benefits¹⁵	
Retirement	
<ul style="list-style-type: none"> ▪ Benefits are based on the accumulated balance of the retirement fund (contributions plus interest earned) ▪ Paid out in a lump-sum or through various annuity options at the choice of the worker 	
Disability	
<ul style="list-style-type: none"> ▪ 180 day waiting period for benefits ▪ Pays 60% of base pay up to a maximum benefit of \$5,000 per month for the duration of the disability up to age 65 ▪ Mental and nervous disorders are covered for a maximum of 12 months ▪ <i>Annuity Contract Waiver of Premium</i> continues contributions into the retirement fund while the worker is disabled ▪ All or part of the retirement account balance may also be withdrawn at the time of disability to supplement disability benefits, although such a withdrawal would reduce funds available upon retirement 	
Survivor	
<p>Of Current Worker</p> <ul style="list-style-type: none"> ▪ Benefits are based on the accumulated balance of the retirement account and interest earned, plus <ul style="list-style-type: none"> -- Full time workers: <i>Group Term Life</i> (life insurance) pays 300 percent of annual earnings with a minimum benefit of \$50,000 and a maximum benefit of \$150,000 -- Part-time workers: <i>Group Term Life</i> (life insurance) pays 150 percent of annual earnings with a minimum benefit of \$25,000 and a maximum benefit of \$75,000 for -- If applicable, <i>Accidental Death and Dismemberment Insurance</i> pays 50 to 100% of group term life amount ▪ Benefits paid out in lump-sum, but beneficiary can then purchase an annuity <p>Of Retiree</p> <ul style="list-style-type: none"> ▪ <i>Post-retirement death benefit</i> pays between \$25,000 and \$50,000 depending on the age of the retiree (paid out in lump-sum) ▪ Widow(er) of retiree may continue to receive a monthly retirement annuity if a joint-contingent survivor's annuity was elected at the time of retirement 	

¹⁵ For further information on Galveston's benefit package, see the *Summary of the Alternate Plan for Galveston County Employees*, revised 1996, available from First Financial Benefits, Inc.

Table 2:

Summary of Social Security Benefits ¹⁶
Retirement
<ul style="list-style-type: none"> ▪ Retired workers can receive up to 100% of the Primary Insurance Amount (PIA), less any reduction for early retirement* ▪ An additional spousal benefit may be worth up to 50% of the worker's PIA, less any reduction for early retirement ▪ Benefits paid monthly for life ▪ Benefits may be reduced by earnings from employment
Disability
<ul style="list-style-type: none"> ▪ Five full month waiting period for benefits ▪ Disabled worker can receive up to 100% of the Primary Insurance Amount * ▪ Qualified dependents of disabled workers can each receive up to 50% of Primary Insurance Amount, up to a family maximum ▪ Benefits paid monthly ▪ Benefits may be reduced by earnings from employment
Survivor
<p>Of Current Worker (non-elderly survivor)</p> <ul style="list-style-type: none"> ▪ Each qualified dependent can receive up to 75% of Primary Insurance Amount* up to a family maximum ▪ Benefits paid monthly ▪ In many cases, there is a lump-sum death benefit of \$255 ▪ Benefits may be reduced by earnings from employment <p>Of Retiree (elderly surviving spouse/divorced spouse)</p> <ul style="list-style-type: none"> ▪ Benefit is 100% of Primary Insurance Amount, less any reduction for early retirement ▪ Benefits paid monthly for life ▪ In many cases, there is a lump-sum death benefit of \$255 ▪ Benefits may be reduced by earnings from employment

***Primary Insurance Amount formula: ¹⁷**

90% of first \$505 of AIME (Average Indexed Monthly Earnings)
 32% of the AIME between \$505 and \$3043
 15% of AIME over \$3043

Coverage and Portability

All permanent full-time and part-time (20+ hours per week) employees are eligible to participate in the Galveston Plan, and participation is mandatory. Those not eligible for the Galveston Plan

¹⁶ For further information on Galveston's benefit package, see the *Summary of the Alternate Plan for Galveston County Employees*, revised 1996, available from First Financial Benefits, Inc.

¹⁷ For further information on Social Security's benefit formula, see www.ssa.gov/OACT/COLA/BenForm.html#BendPts

(temporary and/or part-time employees working less than 20 hours per week) are covered under Social Security. With the exception of life insurance for retirees, coverage for disability and life insurance begins with employment and ends upon termination—it is not portable¹⁸ and there is no coverage during unemployment. Workers begin making contributions to the retirement account upon hire and there is no vesting requirement to be eligible for benefits.

Under the Social Security system, workers begin making payroll contributions from their first paycheck in Social Security covered employment. To be fully insured for retirement benefits, workers must have a minimum of 40 work quarter credits, and workers can earn up to four quarter credits per year of Social Security covered employment (in 1999, a worker earns one quarter credit for every \$740 in earnings, or four quarters for \$2960). Workers are generally covered for disability when they have 6 to 20 quarter credits of recent employment, depending on the age of the worker. Workers are covered for survivor's benefits (non-elderly survivors) when they have earned 6 quarter credits out of a 13 quarter period ending in the quarter of death (i.e., 1.5 years of recent covered employment).¹⁹ Social Security coverage is portable and may continue during unemployment.

Dependent's Benefits

The benefits offered under the Galveston Plan are based on workers' earnings, and are not increased for the presence of dependents. A worker receives the same total benefit with or without dependents. Benefits are paid to a named beneficiary, regardless of whether or not that beneficiary is a dependent (i.e., spouse or child), and beneficiaries do not need to meet qualifications, other than being named by the worker, in order to receive benefits. Under the Galveston Plan there is no guarantee that a dependent will receive benefits. A spouse, divorced spouse, or child of a worker may receive benefits if established as a beneficiary, or if mandated by a divorce decree, but there is no guarantee provided in the Plan.

In contrast, Social Security's benefit level is based on the worker's earnings, and is increased for each qualified dependent, up to a family maximum. Dependents must meet certain qualifications in order to receive benefits (see Appendix C for further information on eligibility requirements for dependents).²⁰ There is a guarantee that qualified dependents will receive benefits under Social Security, and this decision is not left to the worker. Furthermore, benefits paid to dependents do not reduce the benefit received by the worker, and there can be multiple dependents (and households) receiving benefits under one worker's record, with total benefits subject to a family maximum.

¹⁸ Research from the Employee Benefits Research Institute finds that the median worker aged 55 to 64 years has been in his or her current job for about 10 or 11 years. They conclude: "the fact is that there has always been a good deal of job-churning in the U.S. economy." See Paul Yakoboski, *EBRI Notes*, Vol. 20, No. 2, February 1999, pp. 1-4.

¹⁹ For a further description of coverage and eligibility requirements, see Social Security Administration publications: *Social Security Handbook, 13th Edition* (1997); or the *Annual Statistical Supplement, 1998 to the Social Security Bulletin* (1998), pp.372. Information is also available through the Social Security homepage at www.ssa.gov.

²⁰ See *Social Security: Understanding the Benefits* (January 1998) or visit the Social Security homepage at www.ssa.gov for further eligibility and benefit information.

Pay-out Options and Retirement Age

Under the Galveston Plan, retirement and life insurance benefits can be paid out in the form of a lump-sum or through various annuities. Annuities can be fixed for a number of years (for example 5, 10 or 15 years), for life, or for life with a guarantee of a number of years. Retirement funds can be withdrawn at any time upon separation from employment (i.e., there is no specific retirement age), or in the case of an unforeseen emergency such as a catastrophic illness, fire, death in the family, etc. The option to withdraw funds prior to retirement creates the possibility that a Galveston retiree could find herself or himself without adequate benefits at the time of retirement.

Social Security pays benefits in the form of a monthly annuity for life, for example, in the case of retirement benefits, or for a fixed period of time, for example, until a minor child reaches age 18 or 19. Because retirement benefits are paid as a life annuity, there is no risk of retirees or elderly widow(er)s outliving their benefits. Normal retirement age is 65 in 1999, but permanently reduced benefits can be taken at early retirement at age 62.²¹

Taxation of Benefits

The retirement and disability benefits paid by the Galveston Plan are fully taxable as income at the time of distribution. Life insurance benefits are not taxed as income.²² With respect to Social Security, there is no federal income tax on retirement, disability or survivor's benefits if combined income is less than \$25,000 for individuals or \$32,000 for joint filers. If combined income exceeds these levels, there is a partial tax applied to benefits.²³

Effect of Earnings from Work on Benefits Received

There is no earnings test under the Galveston Plan; therefore, earnings from work do not reduce benefits received. Under Social Security, an earnings test is applied to benefits of those under age 70. In 1999, there is a \$1 reduction in benefits for every \$2 in earnings from work over \$9,600 per year for those under 65, and a \$1 reduction in benefits for every \$3 in earnings from work over

²¹ Because of longer life expectancies, the full retirement age will be increased in gradual steps until it reaches age 67. This change starts in the year 2003, and it affects people born in 1938 and later. The normal retirement age in 2045 is 67. See Social Security publication No. 05-10035, *Retirement Benefits*, for further information on retirement age changes. This publication is available on-line at www.ssa.gov/pubs/10035.html.

²² For further information, see Internal Revenue Service Publication 57, *Tax-Sheltered Annuity Programs*, and Publication 575, *Pension and Annuity Income*. These publications are available on the IRS website at www.irs.ustreas.gov.

²³ See Internal Revenue Service Publication 915, *Social Security and Equivalent Railroad Retirement Benefits*, for a complete description of the taxability of Social Security benefits. This publication is available on the IRS website at www.irs.ustreas.gov.

\$15,500 per year for those between ages 65 and 70. There is no earnings test applied to beneficiaries over age 70.²⁴

Effect of Inflation

The Galveston Plan does not index retirement, disability or survivor's benefits to inflation. Contributions made to the retirement account on behalf of disabled workers are fixed, and based on the worker's salary at the time of disability. Because the Galveston Plan does not adjust benefits to inflation, benefits can lose their purchasing power annually with inflation. At an inflation rate of 3 percent per year, benefits can lose 45.6 percent of their value after 20 years.

Social Security benefits are indexed annually to inflation so they maintain their purchasing power over time. Additionally, the wages used to calculate the Average Indexed Monthly Earnings (AIME) on which the Primary Insurance Amount (PIA) is based, are indexed to changes in the national average wage over time.²⁵ This feature, along with annual adjustments to the benefit formula, ensures that benefits reflect increases in the cost of living.

Progressivity of Benefit Formula

Under the Galveston Plan, retirement and disability benefits are provided in direct proportion to contributions and salary level. The formulas for life insurance benefits vary depending on part-time or full-time status, and, in the case of retired workers, on the age of the retiree. The benefit formulas do not provide a proportionally higher benefit to lower-earning workers. In contrast, Social Security's benefit formula is progressive; offering a higher proportional benefit to lower-earning workers. For example, according to the *Social Security Trustees Report*, Social Security's worker's benefits are equivalent to approximately 57 percent of wages for low-earners, 43 percent of wages for average-earners, 34 percent of wages for high-earners, and 25 percent of wages for maximum earners (the earner categories used in the *Social Security Trustees Report* are not the same as those used elsewhere in this report).²⁶

²⁴ For further information, see Social Security Administration Publication No. 05-10003, *Social Security Update 1999*, available on-line at www.ssa.gov/pubs/10003.html.

²⁵ See "How to Compute a Retired-Worker Benefit," *Social Security Bulletin*, Vol. 58, No. 1, Spring 1995. Also see Social Security Publication No. 05-10070, *How Your Retirement Benefit is Figured*, March 1998; or visit the Social Security Administration homepage at www.ssa.gov.

²⁶ See the 1994-1996 Advisory Council on Social Security, *Report of the 1994-96 Advisory Council on Social Security*, Volume 1: Findings and Recommendations, 1997, pp. 223-226.

III. Benefit Comparisons

The following sections illustrate Galveston's projected benefit levels compared to Social Security's benefits for certain earner categories and family types. For each type of benefit, amounts have been calculated for single and married workers at low, middle, high and very-high earnings levels. Earnings data is based on published information and data from the March 1998 *Current Population Survey*.²⁷ The categories used in this report represent earnings at the following percentiles in the year 2045: low = 10th, middle = 50th, high = 75th, and very-high = 90th. All benefit estimates are based on one worker's earnings (they do not include any benefits based on the earnings of a spouse). Benefits are presented in constant 1998 dollars and inflation is assumed to be constant at 3 percent per year. See Appendix B for a detailed description of methodology.

Retirement Benefits

Galveston's retirement benefit is equivalent to the accumulated balance of the retirement account (contributions plus interest earnings). In the following estimates, Galveston's monthly benefit is expressed as a single life annuity for single workers, and as a 2/3 joint-contingent survivor's annuity for married workers.

Under Social Security, a worker's retirement benefit is some percentage of the Primary Insurance Amount (subject to any reduction for early retirement), which is calculated from the Average Indexed Monthly Earnings.²⁸ The Social Security retirement benefits presented in the following tables represent 100 percent of the worker's benefit for single retirees, and 150 percent of the worker's benefit for married couples (100% for the worker, plus a 50% additional spousal benefit). The retirement benefit estimates assume that all workers (and their spouses) retire in the year 2045 at age 65.²⁹ Because the normal retirement age in 2045 is 67, benefits have been reduced because of early retirement. In this case, the benefit reduction factor for early retirement is .92. See Appendix B for further description of methodology and assumptions.

Whether or not the Galveston Plan offers a higher retirement benefit than Social Security depends on the earnings and marital status of the worker. It is also important to differentiate between initial and on-going retirement benefits, because Galveston's benefits are not adjusted to inflation and lose buying power over time. As Table 3 shows, the *initial* benefits offered under the Galveston Plan are higher than under Social Security for single workers at the middle, high and very-high earnings levels and for married workers at the very-high earnings level. Galveston offers a lower benefit than Social Security for single workers with low earnings, and for married workers at the low, middle and high earnings levels.

²⁷ See Thomas Hungerford and Gary Solon, "Sheepskin Effects in the Returns to Education," *Review of Economics and Statistics*. Vol. 69, No. 1, February 1987, pp.175-77. Also see *March 1996 Current Population Survey* data available on-line at www.bls.census.gov/cps/ads/1996/sdata.htm.

²⁸ See "How to Compute a Retired-Worker Benefit," *Social Security Bulletin*, Vol. 58, No. 1, Spring 1995. Also see Social Security Publication No. 05-10070, *How Your Retirement Benefit is Figured*, March 1998; or visit the Social Security Administration homepage at www.ssa.gov.

²⁹ Low and middle earning workers begin employment at age 20 and work 45 years under each system. High and very-high earning workers begin employment at age 22 and work 43 years under each system. It is assumed that high and very-high earners enter the labor force at a later age—age 22—because they are assumed to have more years of education than low and middle earning workers, who enter the labor force at age 20.

Table 3:

Initial Monthly Retirement Benefits in 1998 Dollars * ^a		
Family/Earner Type	Galveston ^b	Social Security ^c
Single		
Low	\$ 733	\$ 763
Middle	1,700	1,269
High	2,402	1,689
Very-High	3,489	1,974
Married		
Low	670	1,139
Middle	1,555	1,895
High	2,197	2,522
Very-High	3,192	2,948

Sources: American United Life Insurance Company, Annuity Table for the Galveston Plan, January 25, 1999. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a benefit that is higher than Social Security's.

^a All workers retire in the year 2045.

^b It is assumed that retirement benefits under the Galveston Plan are paid in the form of a life annuity, and in the case of a married couple, through a 2/3 joint-contingent annuity with rights of survivorship.

^c Social Security's retirement benefits represent 100 percent of the worker's benefit for single retirees, and 150 percent of the worker's benefit for married couples. Given the reduction for early retirement, the worker's benefit is 92 percent of the Primary Insurance Amount.

Although Galveston offers a higher initial benefit than Social Security for some workers, after 15 years Galveston's benefits are lower than Social Security's for all family/earner types with the exception of single, very-high earners. After 20 years, all of Galveston's benefits are lower relative to Social Security's.

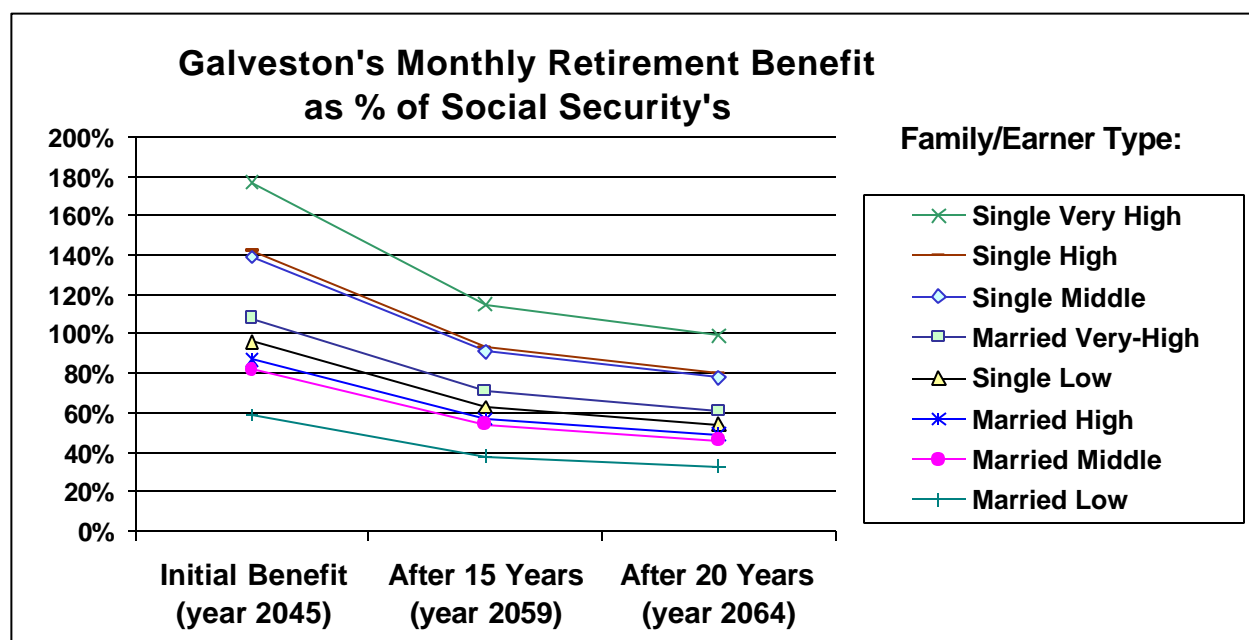
Table 4:

Galveston's Monthly Retirement Benefit as % of Social Security's Over Time (assuming 3% inflation) *			
Family/Earner Type	Initial Benefit (year 2045)	After 15 Years (year 2059)	After 20 Years (year 2064)
Single			
Low	96%	63 %	54 %
Middle	139 %	91 %	78 %
High	142 %	93 %	80 %
Very-High	177 %	115 %	99 %
Married			
Low	59 %	38 %	33 %
Middle	82 %	54 %	46 %
High	87 %	57 %	49 %
Very-High	108 %	71 %	61 %

Sources: American United Life Insurance Company, Annuity Table for the Galveston Plan, January 25, 1999. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a benefit that is higher than Social Security's.

Figure 2:



Disability Benefits

The disability benefits offered under the Galveston Plan are based on 60% of pay at the time of disability, up to a maximum of \$5,000 per month. Disability benefit levels are fixed at the time of disability and are not indexed to inflation. Benefits may be paid until age 65. Benefits for those with mental and nervous disorders are limited to 12 months. Disabled Galveston employees can also withdraw all or part of their retirement benefits at the time of disability, although doing so would reduce benefits available for retirement. Furthermore, Galveston continues to make contributions to the retirement account based on the wages at the time of disability (such contributions are fixed and are not indexed to inflation) and these contributions continue until age 65.

Social Security provides disability benefits based on the worker's Primary Insurance Amount which is based on Average Indexed Monthly Earnings. There are additional benefits available to qualified dependents up to a family maximum. If they remain disabled, disabled workers can receive disability benefits until age 65, at which time their benefit is converted to a retirement benefit, at the same benefit level (indexed for inflation).

The benefit estimates presented in Table 5 and Figure 3 assume that all workers are employed for 15 years under each system.³⁰ It is assumed that Galveston's benefits do not include any

³⁰ Low and middle earning workers begin employment in the year 2000 and become disabled in the year 2015. High and very-high earning workers begin employment in the year 2002 and become disabled in the year 2017. It is assumed that high and very-high earners enter the labor force at a later age—age 22—because they are assumed to have more years of education than low and middle earning workers who enter the labor force at age 20.

additional amounts that Galveston's employees could withdraw from their retirement account. Retirement withdrawals have not been included for reasons of consistency, because including retirement benefits with the disability benefit would necessitate reducing retirement benefits at a later date and such reductions have not been taken from the retirement benefits presented elsewhere in this report.

As Table 5 and Figure 3 illustrate, single workers with no dependents who would qualify under Social Security receive a higher initial benefit under the Galveston Plan. Galveston's benefit for single workers at the middle, high and very-high earnings levels is higher than Social Security's even after 10 years of disability. Married workers with two children at the very-high earnings level receive a higher initial benefit from the Galveston Plan, but after 10 years the benefit is worth 79 percent of Social Security's. In contrast, married workers with two children at the low, middle and high earnings levels receive a higher initial and continuing benefit from Social Security.

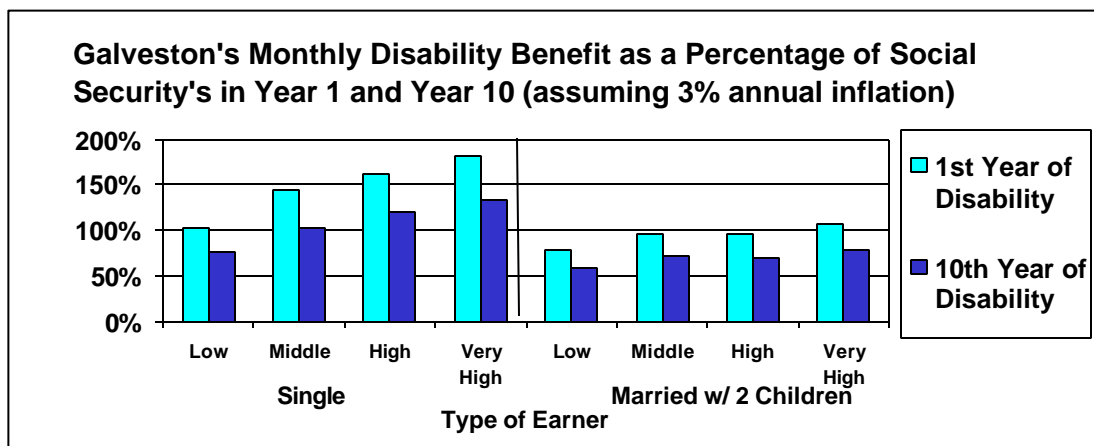
Table 5:

Monthly Disability Benefits in 1998 Dollars *				
Family/Earner Type	Galveston's initial monthly benefit	Galveston's benefit as % of Social Security's in first year of disability	Galveston's benefit as % of Social Security's in year 10 of disability	Social Security
Single				
Low	\$ 637	102 %	75 %	\$ 624
Middle	1,447	145 %	103 %	1,001
High	2,204	161 %	119 %	1,330
Very-High	2,850	181 %	133 %	1,572
Married w/2 children				
Low	637	78 %	58 %	813
Middle	1,447	96 %	71 %	1,501
High	1,958	95 %	70 %	1,996
Very-High	2,535	107 %	79 %	2,358

Sources: *Summary of the Alternate Plan for Galveston County Employees* (1996) produced by First Financial Benefits, Inc., supplemented with an updated formula provided by First Financial Benefits, Inc. 10/98. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a benefit that is higher than Social Security's.

Figure 3:



Survivor's Benefits

Survivors of Current Workers (non-elderly survivors)

To estimate benefits for survivor's of current workers, this report examines four survivor scenarios: (1) a survivor who is not a qualified dependent under Social Security; (2) a family with two children age 5 at the time of death; (3) a family with two children age 10 at the time of death; and (4) a family with two children age 15 at the time of death (children were assumed to be the same age for illustrative purposes only). Survivor's benefit estimates assume that workers are employed for 15 years under each system.³¹ It is assumed that single workers do not have any dependents. In the case of married couples, it is assumed that there are two dependent children present, unless otherwise noted.

Table 6 and Figure 4 illustrate the total benefits available to survivors under each system. As this data shows, Galveston offers a higher total survivor's benefit when there are no dependents who would qualify for Social Security.³² Whether Galveston offers a higher benefit to families with children depends on factors including the deceased worker's earnings level, and the number and age of children. For example, if the worker leaves behind a spouse and two young children age 5 or 10, Social Security provides a higher benefit over time. However, if the children are older, for example age 15, Galveston provides a higher total benefit.

Table 6:

Total Survivor's Benefits in 1998 Dollars (for survivor's of current workers)				
Family/Earner Type	Galveston ^a	Social Security ^b		
Single or Married with No Dependent Children		Social Security does not provide survivor's benefits if there are no dependents who qualify under Social Security		
Low	\$ 58,879			
Middle	132,692			
High	155,294			
Very-High	187,283			
Married with Two Dependent Children		children age 5 at time of death (13 years of benefits):	children age 10 at time of death (8 years of benefits):	children age 15 at time of death (3 years of benefits):
Low	\$ 58,879	\$ 149,309	\$ 91,883	\$ 34,456
Middle	132,692	288,531	174,059	59,586
High	155,294	373,536	226,630	79,724
Very-High	187,283	435,229	264,061	92,893

Sources: *Summary of the Alternate Plan for Galveston County Employees*, 1996, produced by First Financial Benefits, Inc., supplemented with updated information provided by First Financial Benefits, Inc., October, 1998. Social Security Administration, Office of Retirement Policy.

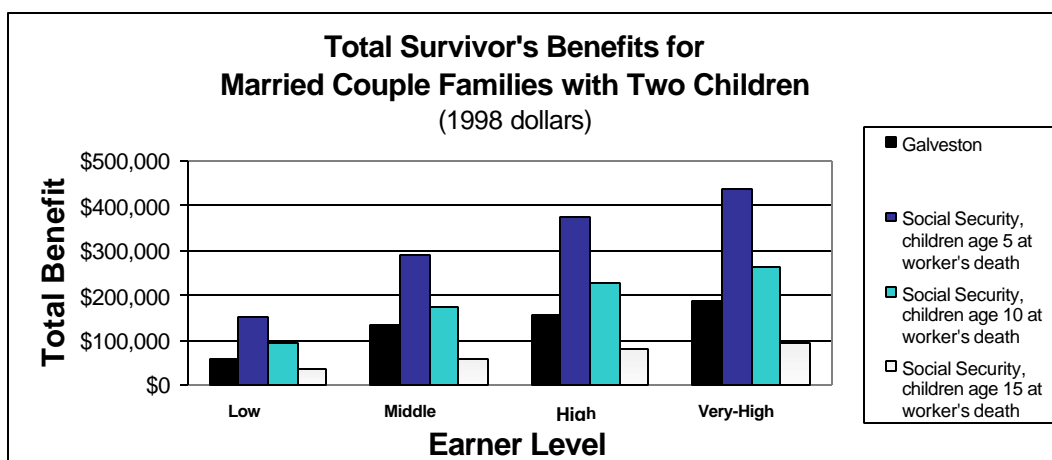
^a The total benefit is based on life insurance benefits and the balance of the retirement fund at time of death.

^b The total benefit represents the sum of total family benefits received.

³¹ Low and middle earning workers begin employment in the year 2000 and die in the year 2015. High and very-high earning workers begin employment in the year 2002 and die in the year 2017.

³² See Appendix C for eligibility requirements for dependents under Social Security.

Figure 4:



With respect to monthly benefits, assuming that families under the Galveston Plan elected to annuitize their benefit monthly until the children reach age 19, families with younger children (ages 5 and 10) would receive higher monthly benefits under Social Security. Those with older children (age 15) would receive higher benefits under the Galveston Plan. Table 7 presents monthly benefit levels for each family scenario:

Table 7:

Monthly Benefits for Survivors of Current Workers under Three Family Scenarios * a, b Assumes benefit payments until children reach age 19 (through age 18) (1998 Dollars)						
Family Scenario:	Married, two children age 5 at time of death (benefit received for 13 years)		Married, two children age 10 at time of death (benefit received for 8 years)		Married, two children age 15 at time of death (benefit received for 3 years)	
	Galveston	Social Security	Galveston	Social Security	Galveston	Social Security
Earner Type:						
Low	\$ 504	\$ 957	\$ 737	\$ 957	\$ 1,720	\$ 957
Middle	1,136	1,850	1,662	1,813	3,877	1,655
High	1,330	2,394	1,945	2,361	4,538	2,215
Very-High	1,604	2,790	2,346	2,751	5,472	2,580

Sources: American United Life Insurance Company, Annuity Table for the Galveston Plan, January 25, 1999. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a higher benefit than Social Security.

^a Galveston's benefit is the total benefit (see Table 6) calculated as a monthly annuity over a fixed period (i.e., 13, 8, or 3 years). The fixed annuities presented in this table are for comparative purposes only. Beneficiaries have several withdrawal options available to them including fixed or life annuities, or a lump-sum withdrawal.

^b Social Security's benefit is the total family benefit for a given time period, averaged monthly over that period (i.e., 13, 8 or 3 years).

Survivors of Retired Workers (elderly survivors)

Benefits for survivors of retired workers under the Galveston Plan are based on a combination of life insurance benefits, and possibly a joint-contingent survivor's annuity (part of the retirement benefit) if the worker chose one at the time of retirement. The monthly benefit that a couple receives from a joint-contingent annuity is less than that of a single life annuity, but benefits continue for the surviving spouse after the death of the retiree.

Under Social Security, a surviving spouse of a retiree can receive a monthly benefit up to 100 percent of the retired worker's benefit. A surviving divorced spouse (if marriage lasted 10 years or more), disabled adult child, or elderly dependent parent can also be entitled to benefits on the deceased retiree's record. There is no reduction in the couple's benefit in order for the widow(er) to receive the survivor's benefit. Payment of benefits to a surviving divorced spouse or a disabled adult child does not reduce the benefits of the surviving spouse. In many cases, Social Security also provides a \$255 lump sum death benefit. There is no additional life insurance benefit provided by Social Security.

Whether the Galveston Plan offers a higher or lower benefit to survivors of retired workers depends on factors including the retiree's lifetime earnings, the type of survivor's annuity (if any) chosen by the retiree under the Galveston plan, the number of survivors (spouse, divorced spouse, disabled child), and the age of survivors. The examples presented in Tables 8 and 9 assume that there is a surviving spouse and no other survivors (such as a surviving divorced spouse) eligible to receive benefits on a deceased retiree's record. It is also assumed that Galveston retirees opt for a joint-contingent survivor's annuity at the time of retirement with a 2/3 annuity available to the surviving spouse.

As Table 8 shows, Galveston provides a higher initial survivor's benefit to elderly widow(er)s of very-high earning workers. Social Security provides a higher initial survivor's benefit to elderly widow(er)s of low, middle and high earning workers. It is important to note that the actual benefits paid by Social Security on the deceased retirees record could be much higher if there are other beneficiaries (such as a surviving divorced spouse or disabled child) qualifying on the deceased retiree's record.

Table 8:

Initial Monthly Widow(er)'s Benefits for Survivors of Retired Workers in 1998 Dollars * ^a		
Family/Earner Type:	Galveston ^b	Social Security ^c
Married		
Low	523	763
Middle	1,107	1,269
High	1,531	1,689
Very-High	2,187	1,974

Sources: American United Life Insurance Company Annuity Table for the Galveston Plan, January 25, 1999. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a benefit that is higher than Social Security's.

^a It is assumed that the worker retires and dies in the year 2045 and that the surviving spouse is age 65.

^b Galveston's benefit is based on the sum of a 2/3 joint-contingent survivor's annuity (worth 2/3 of the couple's benefit), plus the proceeds from life insurance in the form of an annuity for life.

^c Social Security's widow(er)s benefit is equal to 100 percent of the worker's retirement benefit.

As with other benefits, Galveston's benefit is not indexed to inflation and its value relative to Social Security's decreases over time as shown in Table 9. After 15 years, Galveston's benefit is worth 45 to 72 percent of Social Security's, depending on the earnings level of the worker. After 20 years, Galveston's benefit is worth 38 to 62 percent of Social Security's.

Table 9:

Galveston's Monthly Elderly Widow(er)s Benefit as % of Social Security's Over Time (assuming 3% annual inflation) *			
Family/Earner Type	Initial Benefit (year 2045)	After 15 Years (year 2059)	After 20 Years (year 2064)
Married			
Low	69 %	45 %	38 %
Middle	87 %	57 %	49 %
High	61 %	40 %	34 %
Very-High	111 %	72 %	62 %

Sources: American United Life Insurance Company Annuity Table for the Galveston Plan, January 25, 1999. Social Security Administration, Office of Retirement Policy.

* Shaded area indicates where Galveston offers a benefit that is higher than Social Security's.

IV. Conclusions

This purpose of this report has been to explore the similarities and differences of the Galveston Plan and Social Security, and present an analysis of benefits that is specific to certain participant characteristics. As this report has shown, the Galveston Plan and Social Security offer benefits for similar life events—retirement, disability and death. Although benefits are offered for similar life events, the plans differ (sometimes greatly) in areas of finance, investments, coverage, portability, dependent's benefits, pay-out options, retirement age, taxation of contributions, taxation of benefits, treatment of earnings from employment, indexing of benefits to inflation, and the progressivity of benefit formulas.

The relative value of benefits available under each system varies greatly depending on earnings and family structure, and the length of time for which benefits are received. Of all of the plan features which affect benefit levels, the most significant appear to be the availability of additional benefits for dependents, the progressivity of benefit formulas (does the plan provide a higher proportional benefit to lower-earning workers), and the indexing of benefits to inflation. In general, workers with higher earnings and fewer or no dependents that qualify under Social Security tend to fare better under the Galveston Plan, particularly in the near term. In contrast, those with lower earnings and more dependents that qualify under Social Security tend to receive higher benefits under Social Security. Finally, because Galveston's benefits are not indexed to inflation, the longer the benefit is received, the lower the relative value of Galveston's benefit is compared to Social Security's.

Appendix A:

Comparison Chart of the Galveston Plan and Social Security

Comparison Chart		
Provision	Galveston	Social Security
Tax/ Contribution Rate	<ul style="list-style-type: none"> ▪ 13.9% total <ul style="list-style-type: none"> --employer pays 7.8% (4.2% to insurance premiums and 3.6% to retirement fund) --worker pays 6.1% (all to retirement fund) ▪ Of 13.9% total contribution, 9.7% goes to retirement benefits, and 4.2 goes to life and disability insurance premiums ▪ Tax (contribution) on earnings up to \$82,160 for retirement benefits in 1999 ▪ Tax (contribution) on all earnings for disability and life insurance premiums ▪ Contributions made on pre-tax basis (not subject to federal income tax) 	<ul style="list-style-type: none"> ▪ 12.4% total <ul style="list-style-type: none"> --employer pays 6.2% --worker pays 6.2% ▪ Of 12.4% total contribution, 10.7% goes to the OASI (retirement and survivors), and 1.7% goes to DI (disability) in 1999. In the year 2000 and beyond, 10.6% will go to OASI, and 1.8% will go to DI. ▪ Tax on earnings up to \$72,600 in 1999 — indexed annually to changes in the average wage ▪ Social Security contributions are subject to federal income tax
Funding	<ul style="list-style-type: none"> ▪ Fully pre-funded 	<ul style="list-style-type: none"> ▪ Partially pre-funded
Average Interest on Investments from 1981 through 1997	<ul style="list-style-type: none"> ▪ 4.62 % real ▪ 8.64 % nominal 	<ul style="list-style-type: none"> ▪ 4.88 % real ▪ 8.89 % nominal
Taxation of Benefits	<ul style="list-style-type: none"> ▪ Retirement account distributions and disability benefits are taxed as income at time of distribution ▪ Life insurance benefits are <i>not</i> subject to federal income tax 	<ul style="list-style-type: none"> ▪ No tax on retirement, disability or survivors benefits if combined income is less than \$25,000 for individuals or \$32,000 for joint filers; Partial tax on benefits if income is above stated levels

Comparison Chart		
Provision	Galveston	Social Security
Retirement Coverage and Eligibility	<ul style="list-style-type: none"> ▪ There is no specific retirement age--workers can withdraw funds from the retirement fund upon retirement, termination of employment, or in the case of an unforeseen emergency (i.e., catastrophic illness, fire, flood) ▪ A spouse/divorced spouse does not receive additional benefits under the worker's record ▪ Divorced-spouse can receive benefits if he/she is a designated beneficiary or if stated in the divorce decree ▪ Spouse/divorced-spouse can receive benefits only after worker has retired or terminated employment 	<ul style="list-style-type: none"> ▪ A retired worker is eligible for benefits at age 62 and upon meeting work quarter requirements (minimum 40 quarter credits) ▪ Spouse/divorced spouse of a retired worker is entitled to additional benefits under the worker's record ▪ Divorced-spouse is entitled to benefits if married to the worker for at least 10 years ▪ Spouse can receive benefits only after worker has retired ▪ Divorced-spouse can receive benefits at age 62 even if the worker has not yet retired
Retirement Benefits	<ul style="list-style-type: none"> ▪ Compared to Social Security, Galveston has higher initial retirement benefits for single individuals at the middle, high and very-high earnings levels, and married retirees at the very-high earnings level ▪ Worker's benefits are the accumulated balance of the retirement fund (contributions plus interest earned) ▪ Benefit based on contributions and interest earnings—no progressivity for low-earning workers ▪ Pay out options: lump-sum distribution or various annuities, at the choice of the retiree ▪ There is risk of outliving one's benefits under lump-sum or fixed annuity pay-out options ▪ Benefit is not indexed to inflation ▪ There is no additional spouse/divorced - spouse benefit ▪ Benefits are not reduced by earnings from employment ▪ If a worker marries/remarries after retirement, the new spouse cannot be added to an annuity 	<ul style="list-style-type: none"> ▪ Compared to Galveston, Social Security has higher initial retirement benefits for single individuals at the low earnings level, and for married couples at the low, middle and high earnings levels ▪ Worker's benefits are a percentage of the Primary Insurance Amount (PIA) which is based on Average Indexed Monthly Earnings (AIME) ▪ Benefit is progressive—a higher percentage of benefit goes to lower-earning workers ▪ Pay out is in the form of an annuity for life ▪ No risk of outliving one's benefits ▪ Benefit is indexed to inflation ▪ Additional spouse/divorced-spouse benefit is 50% of worker's benefit ▪ Benefits may be reduced by earnings from employment for beneficiaries under age 70 ▪ A spouse who marries a beneficiary after retirement can receive benefits (with some exceptions) after a one year waiting period

Comparison Chart		
Provision	Galveston	Social Security
Disability Coverage and Eligibility	<ul style="list-style-type: none"> ▪ Coverage begins with employment and ends upon termination ▪ Coverage is not portable ▪ Coverage does not continue during unemployment ▪ To receive benefits, workers must meet disability requirements and be in currently employed status 	<ul style="list-style-type: none"> ▪ Coverage begins when workers have worked 1-1/2 to 5 years (depending on the age of the worker) in Social Security covered employment ▪ Coverage is portable ▪ Coverage may continue during unemployment ▪ To receive benefits, workers must meet disability requirements, and be in fully insured status³³
Disability Benefits	<ul style="list-style-type: none"> ▪ Compared to Social Security, Galveston has higher initial disability benefits for single individuals without children, and for high and very-high earning workers with a spouse and two children ▪ 180 day waiting period for benefits to begin ▪ Not computed by progressive formula ▪ Base benefit is 60% of base wages up to \$5,000 per month ▪ No additional benefits for dependents ▪ Benefits for mental and nervous disorders are limited to 12 months ▪ Continued contributions into retirement fund (made by insurance policy) based on wages frozen at time of disability 	<ul style="list-style-type: none"> ▪ Compared to Galveston, Social Security has higher initial benefits for low and middle earning workers with a spouse and two children ▪ 5 full calendar month waiting period for benefits to begin ▪ Computed by a progressive formula ▪ Benefit based is a percentage of the Primary Insurance Amount, which is based on Average Indexed Monthly Earnings ▪ Additional benefits for qualified dependents ▪ No time limit on benefits for mental or nervous disorders ▪ No continued contributions to Social Security required to receive retirement benefits
Survivors of Current Workers Eligibility (non-elderly survivors)	<ul style="list-style-type: none"> ▪ No waiting period for eligibility-- begins upon hire ▪ Only designated beneficiaries can receive benefits ▪ A divorced spouse is entitled to benefits only if stated in the divorce decree and/or if listed as a designated beneficiary 	<ul style="list-style-type: none"> ▪ Waiting period for eligibility – worker must meet work quarter requirements for eligibility; must have 6 quarters out of a 13 quarter period ending in the quarter of death (i.e., 1.5 years of recent covered employment) ▪ Each qualified dependent can receive benefits up to a family maximum (see Appendix C for further details on qualifications for dependents) ▪ A divorced spouse is entitled to benefits if caring for a dependent child of a deceased worker (see Appendix C for further details)

³³ See the Social Security Administration's *Annual Statistical Supplement (1998) to the Social Security Bulletin* pp.372 for further details on insured status.

Comparison Chart		
Provision	Galveston	Social Security
Survivors of Current Workers Benefits (non-elderly survivors)	<ul style="list-style-type: none"> ▪ Compared to Social Security, Galveston provides higher benefits for beneficiaries who do not qualify for benefits under the Social Security program, and for families with older children (see section on Survivor's Benefits, and Appendix C for details) ▪ Benefit based on accumulated balance of retirement account, plus group term life insurance and, if applicable, accidental death and dismemberment insurance ▪ Not computed by a progressive formula ▪ Benefits paid out in lump-sum to designated beneficiary (although the beneficiary can then purchase an annuity if they choose to do so) ▪ Pays benefit to designated beneficiary, whether or not they are a dependent ▪ Benefits not indexed to inflation ▪ Benefits from the retirement account are fully taxed as income, life insurance benefits are not taxed ▪ Benefits are not reduced by earnings from employment 	<ul style="list-style-type: none"> ▪ Compared to Galveston, Social Security has higher benefits for families with younger children (see section on Survivor's benefits for details) ▪ Each qualified dependent's benefit is a percentage of the deceased worker's Primary Insurance Amount, with total family benefits subject to a family maximum ▪ Computed by a progressive formula ▪ Benefits paid monthly ▪ Does not pay benefit if there are no dependents who qualify for benefits under Social Security ▪ Benefits indexed to inflation ▪ Benefits are not taxed if combined income is less than \$25,000 for individuals or \$32,000 for joint filers; partial tax if income is above stated amounts ▪ Benefits may be reduced by earnings from employment for beneficiaries under age 70
Survivors of Retired Workers Eligibility (elderly survivors)	<ul style="list-style-type: none"> ▪ Widow(er) may continue to receive a monthly retirement annuity if a joint-contingent survivor's annuity was chosen at the time of retirement ▪ Couple's monthly annuity is reduced in order to provide a survivor's benefit 	<ul style="list-style-type: none"> ▪ A widow(er) or surviving divorced-spouse receives a survivor's benefits (does not depend on a decision made by the retiree, but the level of benefit may be reduced if the worker chose early retirement) ▪ Couple's benefit is not reduced in order to provide a survivor's benefit
Survivors of Retired Workers Benefits (elderly survivors)	<ul style="list-style-type: none"> ▪ Assuming a 2/3 survivor's annuity, Galveston offers a higher initial survivor's benefit for widow(er)s of retirees with very-high earnings ▪ If a joint-contingent survivor's annuity was chosen, the widow(er) will continue to receive a percentage of the couple's annuity ▪ Retired Life Reserve pays a life insurance benefit of \$25,000 to \$50,000 depending on age of retiree ▪ Benefits are not indexed to inflation 	<ul style="list-style-type: none"> ▪ Social Security offers a higher initial survivor's benefit to widow(er)s of retirees with low, middle and high earnings ▪ Social Security continues to provide the widow(er) or surviving divorced-spouse, with a monthly annuity for life up to 100 percent of the retired worker's benefit ▪ Social Security does not offer a lump-sum life insurance benefit ▪ Benefits are indexed to inflation

Appendix B:

Methodology

Retirement Benefit Estimates

To compare initial Social Security benefits with the initial annuity payment from the Galveston Plan, stylized earnings histories were created. The earnings histories are based on published information and data from the March 1998 *Current Population Survey*.³⁴ The earnings histories are such that the four stylized workers have final year (i.e., at age 65) earnings at the (1) 10th percentile of all older full-time workers (60 to 64 years of age) for the low-earner, (2) the 50th percentile for the middle-earner, (3) the 75th percentile for the high-earner, and (4) the 90th percentile for the very high-earner. The low earner and middle earner are assumed to start working at age 20 in the year 2000, with 45 years of employment before retirement (retire at age 65) in the year 2045. The high earner and very-high earner are assumed to start working at age 22 in the year 2002 and work for 43 years before retirement (retire at age 65) in the year 2045. It is assumed that high and very-high earners enter the labor force at a later age—age 22—because they are assumed to have more years of education than low and middle earning workers, who enter the labor force at age 20.

Under the Galveston Plan, the four stylized workers and the County contribute to the worker's account an amount equal to the Social Security payroll tax devoted to the OASI Trust Fund in the year 2000 and beyond (10.6 percent of the worker's earnings).³⁵ The account balance earns a 5.55 percent nominal annual return, which is consistent with the intermediate cost real interest rate assumption of 2.8 percent, and assumes a 3 percent inflation rate, less .25 percent percentage points.³⁶ Galveston's projected return was reduced by .25 percentage points because historically, Galveston's investments have earned .25 percentage points less than Social Security's investments, which are in long-term government bonds. The average historical rate earned by the Galveston Plan from 1981 through 1997 was 8.64 percent nominal (4.62 percent real). This rate, however, was not used to project benefit levels into the future because it reflects the high interest rate, high inflation years of the early 1980s. It is much higher than current rates and is inconsistent

³⁴ See Thomas Hungerford and Gary Solon, "Sheepskin Effects in the Returns to Education," *Review of Economics and Statistics*, 69(1), February 1987, pp. 175-77. See also the March 1996 *Current Population Survey* by the Bureau of Labor Statistics.

³⁵ In 1999, the contribution rate to the OASI Trust Funds is 10.7 percent of taxable wages (5.35 for both employer and employee). In the year 2000 and beyond, the contribution rate is reduced to 10.6 percent (5.3 percent for both employer and employee), and the percentage going to the DI Trust Funds is increased to 1.8 percent (.9 percent for both employer and employee). See the Social Security Administration's *Annual Statistical Supplement (1998) to the Social Security Bulletin*, Table 2.A3 (pg. 37) for further details.

³⁶ See the 1998 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, April 1998, available on-line at the Social Security Administration's homepage at www.ssa.gov.

with long-range projections of interest rates on long-term government bonds. It is assumed that under the Galveston Plan, the full account balance is used to purchase either a single life annuity or a 2/3 joint- contingent survivor annuity. The annuity payment levels are based on information obtained from the American United Life Insurance Company; the assumed annuity interest rate is 5.80 percent nominal which is based on the assumption of the yield on Long-term Government Treasury Bonds. The nominal interest rate of 5.8 percent is based upon the intermediate assumption of 2.8 percent real from the Social Security Trustees Report, and an assumed inflation rate of 3 percent.

Social Security benefits are calculated using the ANYPIA program obtained from the Social Security Administration's website (www.ssa.gov). Since the normal retirement age in 2045 is 67 years, and it is assumed that retirement occurs at age 65, Social Security benefit estimates reflect the reduction taken for early retirement. The benefit reduction factor is .92. All dollar figures for Galveston's and Social Security's benefits in 2045 and beyond are converted to 1998 dollars assuming an inflation rate of 3 percent.

Disability Benefit Estimates

It is assumed that low and middle earners begin work in the year 2000 at age 20, and that high and very-high earners begin work in the year 2002 at age 22. All workers are employed for 15 years under each system before disability in the year 2015 or 2017 respectively. Benefits for married couple families assume the presence of two children unless otherwise noted. The disability benefit under the Galveston plan is 60 percent of gross monthly wages at the time of disability (up to a maximum of \$5,000 per month). Galveston's benefits do not include any additional amounts that Galveston's employees could withdraw from their retirement account. Retirement withdrawals have not been included for reasons of consistency, because including retirement benefits with the disability benefit would necessitate reducing retirement benefits at a later date and such reductions have not been taken from the retirement benefits presented elsewhere in this report. Social Security's disability benefits are calculated using the ANYPIA program and represent a percentage of the worker's Primary Insurance Amount, which is based on Average Indexed Monthly Earnings. All figures are converted to 1998 dollars assuming an inflation rate of 3 percent.

Survivor's Benefit Estimates

Survivors of current workers (non-elderly survivors). It is assumed that low and middle earners begin work in the year 2000 at age 20, and that high and very-high earners begin work in the year 2002 at age 22. All workers are employed for 15 years under each system before death at the beginning of the year 2015 or 2017 respectively. Galveston's total survivor's benefits represent the sum of Group Term Life Insurance benefits for full-time employees, and the balance of the retirement account at the end of year 2014 for low and middle earners, and at the end of year 2016 for high and very-high earners. Group Term Life Insurance under Galveston pays 300 percent of annual earnings (at the time of death) for full-time employees, with a minimum benefit of \$50,000 and a maximum benefit of \$150,000 for workers under age 70. It is not assumed that survivors receive any proceeds from Accidental Death and Dismemberment Insurance. As with disability and retirement benefits, survivor's benefits are calculated for earnings levels at the 10th, 50th, 75th and 90th percentile.

To calculate survivor's benefits available to families with children, three scenarios were created: (1) family with two children age 5 at the time of death; (2) family with two children age 10 at the

time of death; and (3) family with two children age 15 at the time of death. Galveston's total survivor's benefit (life insurance and retirement benefits) was calculated, then a monthly annuity for a fixed time period (13, 8 or 3 years) was calculated using annuity factors supplied by the American United Life Insurance Company, assuming an annuity interest rate of 5.8 percent. The Social Security survivor's benefit was calculated using the ANYPIA program. The monthly Social Security survivor's benefit represents the total family benefit averaged monthly over a fixed time period (13, 8, or 3 years). All dollar figures are converted to 1998 dollars assuming an inflation rate of 3 percent.

Survivors of retired workers (elderly survivors). The benefit estimates for survivors of retired workers assume that there is a surviving spouse and that there are no other survivor's (such as a surviving divorced spouse) eligible to receive benefits on a deceased retiree's record. It is assumed that the worker retires and dies in the year 2045 and that the surviving spouse is age 65 at the time of the retiree's death. Galveston's benefit is based on the sum of a 2/3 joint-contingent survivor's annuity (worth 2/3 of the couple's benefit), plus the proceeds from life insurance in the form of an annuity for life. Social Security's benefit is 92 percent of the worker's Primary Insurance Amount (100 percent of the PIA times the actuarial reduction factor for early retirement of .92) . All dollar figures are converted to 1998 dollars assuming an inflation rate of 3 percent.

Appendix C:

Eligibility Requirements for Dependents under Social Security

To be qualify for ***retirement or disability benefits*** under Social Security, a beneficiary must be:

- 1) a spouse married to the worker for at least 1 year, or be the parent of the worker's child, *and* be age 62 or older or any age if caring for an entitled child who is under 16 or disabled; or
- 2) a divorced spouse age 62 or older if married to the worker for at least 10 years; or
- 3) a child of a worker who is under age 18 and unmarried, or under age 18 or 19 and attending elementary or secondary school full time, or a disabled child age 18 or older who was disabled before age 22.

To be eligible for ***survivor's benefits*** under Social Security, a beneficiary must be:

- 1) married to the worker at least 9 months (3 months in the case of accidental death) and be age 60 or older, or age 50 or older with a disability, or any age if caring for an entitled child who is under 16 or disabled; or
- 2) a divorced widow(er) at least 60 years old (or age 50 if disabled) and married to the worker for at least 10 years, or any age if caring for an entitled child who is under 16 or disabled, and, in the case of a divorced widow(er), not be currently married unless the remarriage occurred after age 60—or age 50 for disabled divorced widow(er)s; or
- 3) a child of a worker who is under age 18 and unmarried, or under age 18 or 19 and attending elementary or secondary school full time, or a disabled child age 18 or older who was disabled before age 22.